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ABSTRACT

Adults who desire to increase their education need to find courses and programs that meet their needs, time schedules, and financial means. Increasingly, courses for adults will be conducted on the World Wide Web. Many colleges are conducting courses on the Web, and many adults are discovering that, after trying such a course, they actually like learning on the Web because it is convenient and much more personalized and interactive than expected. Many Web sites are available that provide information about Web-based courses at various colleges and universities as well as through private training organizations. Web-based courses are especially necessary for trainers, who not only need to learn the content but also need to learn how to use the Internet to learn and teach. Learning is becoming much less teacher-centered and much more learner-centered. The Internet creates another choice for the lifelong learner as to where and when to learn. (Contains 23 Web references.) (KC)

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LEARNING ENVIRONMENT FOR THE NEXT GENERATION

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Abstract

The purpose of this paper is to delineate the Applications of the Web in training technical trainers and VocEd teachers with emphasis on the needs and demands for web training now and in the future.

GETTING STARTED

When an adult has the desire to enroll in a program or training course the preliminary undertaking is finding an institution of higher learning that will be able to fulfill the person's needs and requirements. The initial course of action would be researching available schools.

Accessibility of the Internet has eased the task of researching institutions. An example of this is an Internet site called Campus Tours. Upon arriving at the site an individual can go to a map of the United States, pick and choose the State where they would like to attend school, and continue to follow the designated tour. (Campus Tours, 1999) The following are some of the areas covered at this web site.

- Index of College and University Home pages
- Sites that Assist in the Admissions Process
- Financial Aid
- Sites for Students
- Tests and Essay Assistance
- Education/College Search engines

Yes, I discovered the University of Central Florida and instantaneously was able to link to the UCF main web site and campus map. There are other schools listed at this web

site that include Virtual tours, Web cam, Video or Shockwave movies, and campus pictures.

Continuing in the scenario, the individual may choose a school he or she would like to attend; however, in retrospect, there may be a question of the availability of time. The person is presently employed and their schedule will not permit them to run off immediately and visit the campus; or make long distant telephone calls to the institution, with the possibility of being transferred from place to place before a connection is made to the appropriate department. They are seeking to enroll in a few courses with the desire to enhance the knowledge they already have or perhaps they've pondered the option of changing their career. Research is needed to explore the avenues of possibilities, their schedule is tight and they can only afford one or two courses.

Time is priceless. Whether it is in a corporate backdrop or education environment, time is very valuable to all of us. Hypothetical learning on how to use particular techniques to instruct company personnel without ever leaving the work locality can be accomplished via the Web, right from a desktop. The trainer can decide on the time – the suitable time.

It is crucial for a trainer to keep up with the skills required in their sector of commerce however. Time is of the essence and who indeed has the time to take off to Kansas for a week or two for a Train the Trainer seminar?

A personal example in the area of time, educational needs and the desire to learn and use computer technology in the learning process is offered in the following information. In my quest to become a teacher and also to obtain a certification on a secondary level it was quite clear that I did not have the time or the energy to attend traditional on-campus course sessions three or four times a week. I initially started with one web course to "get my feet wet." I was working full time (50-60 hrs per week) at the time. Without web training I would never have found the time to take even one course. At the present time I am taking four courses, three on the web and one in-person. I have been told that 13 credits in a summer session are quite a challenge. Without the web training (classes) a good deal of my time would be spent traveling back and forth from home to the university. When I get up in the morning, before I go to bed at night, during the early morning hours when I cannot sleep, on the weekends I can go to my virtual class on the computer.

The following statements taken from the website of a local community college clearly stated my needs:

- "your schedule does not allow you to take conventional college classes
- you want to accelerate your program completion or take classes at your own pace
- you prefer using computer technology for information exchange and continued education" (Brevard Community College, 1996-1999)

Recently I sent a survey to the students of a computer keyboarding class. The Survey stated:

1. "Why are you taking a web course?
2. Does your schedule does not allow you to take conventional college classes?
3. Do you want to accelerate your program completion or take classes at your own pace?
4. Do you prefer using computer technology for information exchange and continued education?
5. Please comment on these thoughts and give any further opinion regarding web training.

The following is a comment I received from one of my classmates - "R".

> "I am taking another computer course through Valencia at First Academy (the school at my church, First Baptist Church, Orlando). It is 3 credit hours in a two-week time frame. Because I have to sit at a computer for 5 to 8 hour time periods, I am not enjoying that class as much as the class on the Internet. I like working at my own pace." "Because it is an 'easy' way to re-certify as a teacher, I am taking a web course. In five years when I have to re-certify again, I will take another web course"

Teachers must continue their education to keep their certification. Web courses are convenient and utilizing a computer to take the course integrates technology skills along with the subject matter.

Professional growth is not only a necessity but also mandatory for Vocational Education teachers. Teachers can enlighten other teachers through sharing web

sites. The Web media starts peeling off the layers of apprehension that some teachers have relative to the internet, web courses, computers and technology in general.

(Communication Technology Lab, Michigan State University, 1998)

Once the future student has reviewed the courses required for a program and determine what is actually offered, on the web, he or she would be able to process all documents through e-mail and regular mail, if necessary. At this juncture, I am not sure if all schools are sophisticated enough to avoid the mailing process. In the future, through a scanning and video process an interview as well as an application process can be completed.

While enrolled in the web course, remembering that the student lives in Little Town, Montana and has never been to Florida, he or she notes a page on the school's web site that includes the photographs of all the professors. Now the student is able to see what their professor looks like. In the future, I am sure each student can scan their photo into the web course site, thereafter the photos can be posted to a class bulletin board where a student living in Montana can see what a classmate looks like that lives in Alaska. Impossible? I don't think so and I don't believe we've seen the tip of the iceberg yet. There is updated technology taking place as I write this assignment and either "you're on the ship going forward" or "staying on shore and watching the ship go by."

Another possibility is enrolling in a course from an institution located in another country, possibly Hong Kong. The following is a description of such a school. "Distance teaching offers the adult learner further flexibility to devise a personalized study schedule which will fit into the busy lifestyle typical of Hong Kong." (Open University of Hong Kong, 1997)

WHO IS LEARNING ON THE WEB?

> "Most students who enroll in distance education courses are over 25 years old, employed and have previous college experience. Over half are female. As a group, distance learners are highly motivated. Their course completion rate exceeds that of students enrolled in traditional, on-campus courses. The successful distance learner is by definition a committed student. The individual must have the discipline to establish a regular study schedule each week and adhere to it without having to be reminded by an instructor or classmates to meet deadlines.
>
> A wide range of employers--businesses, hospitals, government offices, military installations--which find it difficult to release employees for on-campus study, are discovering that it is a good investment to bring the classroom to their worksites. According to a survey conducted by the International Foundation of Employee Benefits Plans, employees rank continuing education as more important than childcare, flextime and family leave.
>
> *Presented with permission from Peterson's by* ***Virtual Ink Press***™" (Peterson's, 1999)

Information and communication tools are rapidly becoming vital to how we learn and interact with the world. Unlike previous developments in the area of education

technology, the Internet is here to stay. It is not just another educational fad; it is becoming essential to the ways in which most of us communicate and function in our daily lives. The Internet is available, it is wanted and needed. (Peterson's, 1999)

EARN WHILE YOU LEARN

The future learning atmosphere for the next generation will give the student the option to utilize the latest technology to accomplish the training needed to continue their education for a lifetime. The future will be a "learn while you earn" environment. The importance of the "bottom line" is extremely important to the business environment.

Utilizing the web to train technical trainers will enable employees of corporations to continue production. It is therefore beneficial for schools to encourage alliances with corporations in order to obtain a market share of global distant learning

Partnerships can be formed between the business environment and academia. Liaisons and Consultants from Universities can contract with corporations to provide education to its employees. They can provide faculty members and instructional design for web courses that can be placed on the company's intranet system.

"In a recent trend, the exact shape of which is not yet clear, educational institutions are entering alliances with corporate partners to obtain some of the benefits of scale in production and distribution of distance learning programs. The California State University (CSU) system has partnered with publishers Simon & Schuster to offer teacher training programs: Simon & Schuster provides investment funds, and the CSU faculty in teacher education deliver five courses basic to the curriculum on CSU campuses and other locations throughout the state. The University of Washington has entered a partnership with Prentice Hall, and recently, the Warton School of Management, Sylvan Industries, and MCI have agreed to form a partnership." (Moore, M. G., 1999)

Corporations and schools will be developing more "Career" partnerships. As the unemployment rate drops corporations are desperately seeking the right type of employee that fits into an "empty slot" as well as employees that can be groomed to become part of the company's image.

"Earn a Salary While You Earn an Education As you work at your sponsoring dealership, you'll be earning a salary while you earn your education. And there's an excellent chance that you'll be hired for a full-time position upon graduation. Not many educational programs can offer that." (Deere & Company, 1999)

As this area continues to grow the "Education Industry" must keep up with corporate needs. Some of the preliminary classes for these technically skilled jobs can be set up on

internet web classes in any location. The space and equipment needed is minimal. After a brief orientation class, the employee can begin training immediately on a desktop computer in a cubical, room, location, and/or designated training space.

"A Universal Problem: How to Do More with Less. Technological advances, industry consolidations, and corporate globalization are driving flatter, leaner organizations. As a result, in order for companies to stay competitive, they need to be able to do more with less, requiring greater breadth of business knowledge from their employees." (Ninth House Network, 1999)

NOW THE MARKETING BEGINS

Caveat Emptor. When a new product has the potential of generating revenue everyone wants part of the action. It is important to choose carefully. We must learn how to critically evaluate and interpret what is being offered.

"ALX, a website supported by the public workforce development system, is a free electronic marketplace connecting people to the training and education they need. As with any marketplace, consumers should exercise discretion and judgment in choosing among the products and services listed here. Please see our disclaimer for more information" (America's Learning Exchange, online)

It is important to look for disclaimers as indicated above. When the warning is given

then search what you're looking for and check it out through various sources.

One of the FAQ's at this site was:

"How do I find out about academic programs in the field of training?

Academic Information is available on the ASTD website at http://www.astd.org. National members of ASTD can also contact the Information Center for a free customized academic search by degree, region or subject matter.

At your local or academic library or commercial bookstore, you should be able to locate numerous directories of college and university programs, including Peterson's Graduate and Professional Programs Directory Information can also be found on Peterson's website: http://www.petersons.com. " (America's Learning Exchange, online)

At the site for the Peterson's Graduate and Professional Programs Directory Information there are various search engines you can use to check institutions, programs, searching degree programs without on campus requirements for undergraduate degrees, associates, bachelors, masters, doctorate and graduate certificates. For a VocEd teacher you can search by courses offered which included 189 subject areas for undergraduate credits and 168 subject areas for graduate credits. (Peterson's, 1998)

In addition to public and private colleges and universities there are private training vendors. Listed as an example only, not a recommendation is DLI.

"About DLI:

As vendor/producer of training programs, ITC constantly monitors the industry to recognize new trends, competition, and industry direction changes. In keeping with the trend towards WBT, we researched the possibility of converting our own programs to this new format. In our research, however, we found only huge super sites that were trying to be "all things to all people" without any focus on content and distant-learning resources. We couldn't find resource sites that provided examples, information on providers, and information on producers, demos, and tools. Thus, we recognized the need for a site catering to Internet and Intranet based training and education, where the public and private sectors, end users, and even producers can find quality distant learning resources.

DLI offers other services that complement the distance training information: conference rooms, a Distant Learning ListServ, and a bulletin board/messaging service.

DLI is not, and does not claim to be part of any accredited Institute or University.

DLI is a subsidiary of International Training Consultants, Inc - ITC. ITC has been a vendor/producer of quality training and development programs for over 25 years and is located in Richmond, VA. ITC is a proud member of the Training Media Association.

You may contact ITC at 800-998-8764, or e-mail at itc@trainingitc.com " (Distant Learning International, 1999)

There is a web site that includes a number of training and development companies, magazines and other material that can be used when searching for the appropriate program. http://www.tmreview.com/Links.html (TMR Publication, 1999)

A site that is being developed will list accredited distant learning programs it will be called "Bears Guide to earning degrees Nontraditionally".

http://www.degree.net/distance-learning/html/schools.html (Financial Times Management, Inc., 1999)

Another directory includes popular distant learning schools.

http://www.angelfire.com/mo/EmirMohammed/popular.html (EmirMohammed Links, 1999)

"Distant Learner's Guide" published by Prentice Hall is available for students seeking a degree or course through the Internet. Information located at: http://www.wiche.edu/telecom/resources/News/dlgrlse.htm

Recent advances in telecommunication technologies have radically altered the world of education, greatly increasing the choices and opportunities for consumers. It is important to make informed decisions. Researching and asking questions are primary in assisting the learner to make the right choice. Some programs are just moneymaking schemes and it is important for the "buyer to beware".

A NEW EXPERIENCE - VIRTUAL CLASSROOMS

The first hurdle and problem that may occur is "Fear of Change". When dealing with change there is an inherent fear that arises. There's fear, denial, anger, resistance, bargaining. Eventually, there's acceptance that this is the way things are. You must be able to step outside of your comfort world. The resistance varies depending on the individual and whether they are open to change. There must be communication, communication, and communication. A dictatorial manner only causes resentment and resistance to change. You must be aware of what people are going through during these requests for change.

One approach to change is answering the question "Why should I care?" Thoughts follow such as:

1. "Everything is fine the way it has been for years."
2. "There is nothing like face to face contact with the student or teacher or trainer."
3. "What happened to my security?"
4. "I am a teacher or trainer or professor or student not a computer expert."
5. "How do I keep in touch with my teacher or trainer or professor without seeing him or her for every class?"
6. "How will I learn how to use the system?"
7. "How do we keep people from cheating?"

Let's look at the overall picture of what is occurring in the field of training and learning. As indicated by companies such as Ernst & Young "There is a Marketplace Need For a Revolution in Learning." (Ernst & Young, 1999)

The following is a quote from the Editors of Training and Developing Magazine, "For the times, they are a-changin'," sang Bob Dylan, with pained yet hopeful urgency. Nothing is as constant as change, we know. Professionals responsible for workplace learning and performance have never had more exciting opportunities-or greater challenges-than now.

There's a lot happening in the training industry-spreading supplier consolidation, feverish Wall Street scrutiny, a renewed and determined focus on leadership

development and executive coaching, the mandate to manage knowledge, employees' demand for career development (or else!). And that doesn't count the technological developments-such as intelligent tutoring systems, learning objects, voice recognition-that are revolutionizing the way people and organizations work and learn.

ASTD's research department details these profound perturbations in "Trends in Workplace Learning: Supply and Demand in Interesting Times." Interesting indeed. Small training firms are being gobbled up by big holding companies, the training marketplace is becoming a virtual entity, employees at all levels are assuming leadership responsibilities, workers are walking when their employers don't provide career development, and training providers are struggling to keep up with learning technologies that...well, astound the mind.

Dylan also admonished, "then you better start swimmin' or you'll sink like a stone," if we don't recognize changing times. We do. And we're riding the wave. (Editors, Training and Development Magazine, 1998)

Reviewing what is occurring in many education facilities may be an influence and motivator for change. For instance, an article in the Training and Developing Magazine gives the five most wired colleges. If these statistics are correct, note that 31% of the top 100 colleges offer distant learning classes.

"Ivy League, Cyber League

According to Yahoo! Internet Life (www.zdnet.com/yil/content/college), the five most wired U.S. colleges are

Dartmouth College

New Jersey Institute of Technology

MIT

Rensselaer Polytechnic

University of Illinois, Urbana-Champaign.

Being wired includes having Net access, a campus network, email accounts, online class registration, student homepages, and public computers. Of the top 100 U.S. colleges, 31 percent require Internet training for students, 8 percent require Internet training for faculty, and 31 percent offer distance learning." (Abernathy, D.J., 1998)

By the way, the University of Central Florida was ranked 97. Their overall score was 66.64.

Overall Score	**66.64**
Hardware	
Computers per 100 Students	**7.50**
Recent Computer buys (%)	**95**
Computers Available 24/7 (%)	**30**
Wired Dorm Rooms (%)	**9**
Computer Required/Discounted	**N/Y**

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Academics

Online Registration	Y
Online Drop/Add	Y
Online Course Schedule	Y
Online Transcripts	Y
Distance Learning	Y

Free Services

Campus Tech Support (hrs/days)	20/7
Webspace (in Megabytes)	4
Network File Space	Y
Multiple E-mail Accounts	Y
E-mail For Life	Y
Alumni Access	Y

Miscellaneous

Web Restrictions	N
Electronic Application	Y
Seeing-Disabled	Y
Ergonomic Keyboards	Y

Comments

Get your bachelor's degree in vocational education, nursing, or liberal studies via the online distributed-learning program.

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"What is learned is more important than where it's taught." The time has come to offer the choice to students as to when and where they will be educated. Although it may be initially uncomfortable to change one's concept of how higher education should be presented it has already happened. "The Internet will transform education the way Henry Ford's assembly line changed automobile manufacturing. The Internet can provide standardized courses, reach global markets, allow for rapid updating with new knowledge, eliminate Ivory Tower overhead and replace tenured faculty with less costly freelancers." (Phillips, V., 1999)

"Those who try it like training on line." A recent survey by International Data Corporation indicated that 60% would highly recommend Internet based training (IBT). The responses were from training managers, information system managers, and business unit managers. "Three factors contribute to IBT's success, says IDC analyst Ellen Julian: "Flexibility, convenience, and cost-effectiveness." With IBT, as opposed to classroom training, trainees take a course whenever they have time, wherever they are. Business can enjoy dramatically lower travel-related costs by using IBT, she notes. IBT

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is useful to a variety of fields, although respondents to the IDC survey represented the business world. Scientific Learning, for example, develops Fast ForWord, an Internet-based program that teaches speech and reading skills to learning-disabled children. From the comfort of their homes, children can do their Fast ForWord exercises while the company monitors and logs their performance over the Internet, says Jim Mills, Scientific Learning's marketing director. The software generates daily progress reports sent over the Internet." (Barrett, A, 1999)

'Duke University first explored the idea of offering a distance-learning program because it wanted to reach out to the global market and attract a diverse group of students. Now that it has established a global network of students, the university sees that its virtual classroom fosters crucial communication and remote management skills that would be difficult to learn otherwise. "It's important to the faculty to have interactions with people outside of the U.S.," says John Gallagher, director of computer-mediated learning at Duke, who also served as director of IT at the program's inception. "And we also actually believe that this is going to be the paradigm for education beginning now and into the future."' (Davis, J., February 12, 1999)

"Modern learning, in and out of schools, is tending toward more learning by doing (less by systematic memorizing), more learning just in time (less chance of being unmotivated long before the need), more customized learning (less one-size-fits-all), more integrated learning (less slice-and-dice), and more entertaining (less by holding young feet to the fire). There is also more learning about how to learn. Digital

technologies, especially the Internet, are accelerating these trends. Many of those working on learning and education see great promise in the Internet. Having seen what it can do, they are quite articulate about what it can't. Better living in the Information Age depends on better learning, and better learning depends on better Internets. What better reason to hurry the internet's various next generations?" (Metcalfe, B., November 12, 1998)

As for training the technical trainers "Market research company International Data Corp. predicts that distance learning via the Web will be the fastest-growing segment of technology-based training this year and that the Web-based IT training market will exceed $1 billion annually by the end of the decade." (Battey, J., November 10, 1997)

CONCLUSION

In the past, preconceived ideas of an impersonal atmosphere have kept students and educators from using the web as a teaching forum. The utilization of the computer has in fact given both the student and teacher the capability of individualized attention as well as the ability to research topics right from a person's home, place of employment and possibly a hotel room.

Rather than a replacement for the traditional education, the Internet will create another choice for the lifelong learner as to where and when to learn. The future will be a student-centered learning environment via the World Wide Web where discovery, not the transmission of knowledge, is the basis for teaching and learning.

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